

## AMENDMENTS TO THE SPECIFICATION WITH MARKINGS TO SHOW CHANGES MADE

Change the title to read: --METHOD FOR DISPENSING LIQUID FRAGRANCES  
AND DEVICE FOR CARRYING OUT THE METHOD--.

Before paragraph **[0001]**, add the heading --BACKGROUND OF THE  
INVENTION--.

Amend paragraph **[0001]** as follows:

**[0001]** -- The invention relates to a method for dispensing liquid  
fragrances, ~~with the features of the preamble of claim 1~~ and a device for carrying  
out the method ~~with the features of the preamble of claim 11~~--.

Before paragraph **[0008]**, add the heading --SUMMARY OF THE INVENTION--.

Amend the following paragraphs:

**[0009]** -- The first object is solved with a method ~~having the features of~~  
~~claim 1~~ for dispensing liquid fragrances, by using a device with at least one  
supply line for supplying the fragrance to at least one delivery unit, wherein the  
supplied fragrance is converted to an aerosol by applying an electric charge, a  
high-voltage unit connected to the delivery unit for applying the electric charge to  
the fragrance, a controller, and at least one shutoff and actuating element  
connected with the controller for shutting off the supply line, wherein the shutoff  
and actuating element and the high-voltage unit are activated with a time offset  
relative to each other, thereby reducing a quantity of the fragrance disposed  
inside the supply line between the shutoff and actuating element and the  
delivery unit--.

**[0017]** -- According to ~~claim 4~~ another feature of the invention, an electric high voltage in a range of between 0.5 kV and 25 kV is applied to the delivery unit. Preferably, the applied electric high-voltage is in a range of between 1.5 kV and 6 kV ~~[[ (claim 5) ]]~~. The high voltage can be generated in a small space by a high-voltage cascade. Because the high voltage can be generate with a small input voltage, a corresponding device can operate on batteries, i.e., independent from the power mains.--.

**[0018]** -- Advantageously, the level of the electric high voltage is maintained constant, while the volume flow of the fragrance is controlled by the shutoff and actuating element ~~[[ (claim 6) ]]~~. This arrangement can significantly reduce the complexity of the controller in the employed device, because the delivered quantity is controlled only by the position of the shutoff and actuating element. The electric high voltage needs only be switched on and off with a time offset, which has no effect on the delivered quantity. The high voltage can be a DC voltage, and its polarity can change between two spray events.--.

**[0019]** -- According to ~~claim 7~~ another feature of the invention, the volume flow can be changed with a micropump. Micropumps are known in the art. They can be made of plastic, in particular polycarbonate, and can be actuated by a piezo-ceramic actuator operating on a membrane. The feed rate can be regulated by controlling the amplitude of the piezo-ceramic actuator. Micropumps can be easily integrated in fluid systems and can be manufactured cost-effectively.--.

**[0020]** -- Advantageously, the maximum feed volume of the micropump can be adjusted to be smaller than or equal to the delivery capacity of the delivery unit ~~[[ (claim 8) ]]~~. In this way, the delivery unit can safely accommodate the volume flow conveyed by the micropump, thus achieving constant droplet size and homogeneous atomization of the fragrance.--.

**[0021]**      ~~-- In the embodiment recited in claim 9~~ According to another feature of the invention, each delivery unit is supplied with a different fragrance, wherein the fragrances are separately converted into aerosols by timing or volume control. In this method, different fragrances can be mixed by employing a time and/or volume-dependent control and dispensed in a predetermined temporal sequence. Delivery of the scent can be controlled by a program, for example in wave-form. A corresponding device can be flexibly employed and deliver several fragrances simultaneously. With the electro spray process, even the smallest quantities of scented oils and concentrated fragrances can be controllably and efficiently metered. These devices also have a small installed size and can be controlled by a microprocessor in the controller. Alternatively, within the context of the invention, interfaces to an external controller can also be provided, either to program the internal controller of the employed device or to actively communicate between the external controller and the controller in the device.--.

**[0025]**      -- According to another advantageous measure, the fragrance can be withdrawn via the supply line from an exchangeable fragrance reservoir having a flexible casing ~~[[ (claim 10) ]]~~. The fragrance is received in the flexible casing without contact with the atmosphere, so that evaporation of the initial scent of the fragrance can be prevented already in the region of the fragrance reservoir. The total quantity of fragrance is transported from the fragrance reservoir through the supply line and the shutoff and actuation element to the delivery unit without contact with the atmosphere, so that the scent does not change until atomization. The fragrance reservoir can have an indicator for the fill level or an indication when the fragrance reservoir will be totally empty. In the simplest embodiment, the flexible casing has at least one partially transparent region with a scale so that the fill level can be read directly.--.

**[0030]**      ~~-- A device embodiment of the invention is solved by the device having to the features recited in claim 11.--~~

**[0031]**      -- The According to another aspect of the invention, a device according to the invention for carrying of the method recited in one of the claims 1 to 10 includes at least one supply line for supplying the fragrance to at least one delivery unit, where the supplied fragrance is converted to an aerosol by applying an electric charge. The device further includes a high-voltage unit connected to the delivery unit for applying the electric charge to the fragrance, a controller, and at least one shutoff and actuating element connected with the controller for shutting off the supply line. A micropump is also provided which affects the volume flow of the fragrance. The micropump is sized so that the maximal delivery volume of the micropump is less than the maximum delivery capacity of the delivery unit. The quantity of fragrance disposed inside the supply line between the shutoff and actuating element and the delivery unit can be reduced by activating the high-voltage unit and the micropump with a time offset. The shutoff and actuation element of this device is preferably a component of the micropump, so that the delivery unit still operates for a certain time after the micropump is shut off, thereby reducing the quantity of fragrance remaining between the micropump and/or the shutoff and actuation element and the delivery unit. This reduction is achieved, as described above by the electro spray method.--.

Before paragraph **[0034]**, add the heading --BRIEF DESCRIPTION OF THE DRAWING--.

Before paragraph **[0044]**, add the heading --DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS--.

Page 16, delete completely.

Page 17, after the heading "CLAIMS" and before the first claim add --What is claimed is:--.